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ABSTRACT

This annotated bibliography lists publications and audiovisual materials devoted to renewable energy sources: sun, wind, water and biomass. A few general texts are included that present concepts fundamental to all energy sources. Materials were selected to be adaptable to classroom, workshops, and training sessions. Also, many do-it-yourself consumer/home owner materials are included. Technical books are listed as they may be useful to students and professionals. Publications are grouped by grade level. Films, videocassettes, slide shows, and filmstrips are listed according to energy source subject. Prices, sources, and grade level are given with the description of each audiovisual item. (Author/MF)

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Solar Energy Education Bibliography

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SOLAR ENERGY EDUCATION BIBLIOGRAPHY

February 1979

Introduction

In preparing for the international solar celebration, Sun Day (May 3, 1978), we discovered a dire need for a thorough list of solar energy education materials. With a grant from HEW's Energy and Education Action Center, the Center for Renewable Resources has produced this comprehensive, annotated bibliography of solar publications and audio-visual materials. It is not an endorsement of these materials; it is a reference guide to hundreds of valuable educational sources.

Unlike numerous energy/environment bibliographies floating around, we selected materials strictly devoted to renewable energy sources --- sun, wind, water and biomass. A few general texts are included because they clearly present fundamental concepts necessary to understanding all energy sources. And we specifically selected materials that would adapt to classroom, workshop and training sessions. Since demonstrating solar power at work is the best way to understand it, many do-it-yourself consumer/home-owner books are included with projects that easily lend themselves to classroom use. Technical books are listed only if they can be useful to students as well as professionals.

We regret that we could not review most of the entries first-hand, particularly the audio-visual materials. If there are gross inaccuracies, misinformation or an unpalatable mix of "new" nonrenewable technologies presented, please use your good judgment and intelligence to compensate (and notify us immediately!).

For many of the descriptions and evaluations presented, we are indebted to a wide range of sources including Friends of the Earth's The Energy and Environment Bibliography, National Solar Heating and Cooling Information Center, Environmental Action Reprint Service (EARS), Solar Energy Books catalog, Department of Energy's inventory of energy education materials and many other lists from community groups, newletters and universities around the nation. By combing these diverse sources we tried to assure the broadest possible listing of available solar materials.

The publications are grouped by grade level: "elementary" is pre-school (PS) to sixth grade; "secondary" is seventh to twelfth grades; and "college" includes two-year, four-year, vocational-technical and adult/evening institutions. The only other codes are "pbk" for paperback and "hbk/hbd" for hardback/bound.

Solar and change seem synonomous, making it difficult to keep up with all the latest information. What lies herein is subject to change. If you know something we don't and should, please pass it on. We strive to maintain some semblance of accuracy in this listing.

We offer this bibliography as a starting point, a base from which students and teachers can build their own information sources. Happy hunting...

Beth Wagner
Education Coordinator

SOLAR ENERGY BIBLIOGRAPHY

Elementary Level

GENERAL

AERO (Alternative Energy Resources Organization). Sun Fun Coloring Book. AERO, 435 Stapleton Bldg., Billings, MT 59101 1978 $.50 16 pp. gr. K-3

Perhaps the first coloring book on solar and renewable resources. Story with puzzles, cut-outs and pictures to color.

Houck, Oliver. The Best Present of All. National Wildlife Federation, 1412 16th St.NW, Washington, D.C. 20036 1974 23 pp. 1-9 copies @ $.30 ea./10-more @ $.20 ea. gr. K-6 (& up)

Colorful, amusing, provocative tale of a king's search for the perfect present for future generations. Discusses all energy sources before choosing the energy heir: solar energy, of course.

National Science Teachers Association. Award Winning Energy Education Activities for Elementary and High School Teachers. ERDA(DOE)/NSTA. Available from: DOE Technical Information Center, P.O.Box 62, Oak Ridge, TN 37830 1977 38 pp. Free gr. K-12

Eleven prizewinning entries in the 1976 National Science Teachers Association Participation Contest. Special activities highlight various aspects of energy.

National Science Teachers Association. The Energy We Use. DOE Technical Information Center, P.O. Box 62, Oak Ridge, TN 37830 1977 41pp. Free gr. 1

Booklet on energy with several sections discussing sun, wind and water power. Designed for classroom use with many simple activities.

Wildsmith, Lee Brian. The North Wind and the Sun. Franklin Watts, New York, NY 1964 Preschool-2

A bright, exciting picture story showing the relationship of the sun and the wind.

SOLAR

Berger, Melvin. Energy from the Sun. Thomas Crowell,Co., New York, NY 1976 33 pp. $5.95 gr. K-5

Explains how the sun is the beginning of almost all of the energy on earth. Reveals the chain of solar relationships. Excellent for young children.

Branley, Franklyn. Solar Energy. Thomas Crowell, Co., New York, NY 1975 (revision of 1957) 117 pp. $5.95 gr. 5-10

Explanation of solar energy, present and future uses. Drawings of solar devices and directions for simple experiments included.

Branley, Franklyn. The Sun: Our Nearest Star. Thomas Crowell, Co., New York, N.Y. 1961 36 pp. $4.50 gr. K-6

Describes the sun's size, shape and characteristics and why it is necessary to our lives.

Branley, Franklyn. The Sun: Star Number One. Thomas Crowell, Co., New York, N.Y. 1964 gr. 6-12

Scientific approach regarding the sun as the center of the solar system.

Department of Energy, Science Activities in Energy Series: Solar Energy. DOE Technical Information Center, P. O. Box 62, Oak Ridge, TN 37830 1977 23 pp. Free gr. 4-6

Packet of twelve simple experiments designed to show students the properties of solar energy. Very attractive, encourages creativity. Very popular with students and teachers.

Fregosi, Claudia. Sun Grumble. MacMillan Publishing Co., Riverside, N.J. 1974 Preschool-2

Beautifully illustrated storybook about the sun.

Goudey, Alice. The Day We Saw The Sun Come Up. Charles Scribner's Sons, Inc., New York, N.Y. 28 pp. $7.95 gr. K-4

Story and pictures describe the sun's relationship with the earth.

Halacy, Daniel S. Jr., Experiments with Solar Energy. W. W. Norton & Co., New York, N.Y. 1969 $4.50 gr. 6 — up

Collection of solar experiments including list of materials, approximate costs, construction and operation of the devices involved.

Halacy, Daniel S. Jr. Solar Science Projects. Scholastic Book Services, New York N.Y. 1974 96 pp. $.85 all ages

Seven simple solar projects that really work. A classic, dating from 1959, easy to understand and appealing. A classroom staple on Sun Day; extremely popular.

Hoke, John. The First Book of Solar Energy. Franklin Watts, Inc., New York, N.Y. 1968 $4.90 gr. 4-6

An introduction to the sun's energy and its various forms. Discusses the origins and uses of solar energy and the devices used to collect and convert it.

Knight, David. Harnessing the Sun: The Story of Solar Energy. William Morrow & Co., New York, N.Y. 1976 128 pp. $5.95 gr. 5-9

Discusses past and present work in the field of solar energy with speculations about future applications.

Regimers, Beatrice. Who Likes the Sun? Harcourt Brace, New York, N.Y. 1961 gr. PS - 2

Factual story about the sun. Easy reading for second grader, and good read-aloud book for younger children.

Ruchlis, Hyman. Thank you, Mr. Sun. Harvey House Publishers, Irvington-on-Hudson, N.Y. 1966 (revised from 1957) 45 pp. $4.69 gr. 2-5

Picturebook with text explaining the sun's role in food, water, oxygen and heat production. Good background reading for young readers.

Shapp, C. & M. Let's Find Out About the Sun. Franklin Watts, Inc., New York, N.Y. 1975 $4.90 K-3

Text with colorful illustrations that explain the earth's rotation around the sun and the changing seasons.

Smith, Norman. Sun Power. Coward, McCann and Geoghegan, Inc., New York, N.Y. 1976 46 pp. $4.65 gr. 4-6

Booklet describing the importance of the sun to all living things, offering a new understanding and appreciation of our chief energy source.

Spetgang, Tilly and Malcolm Wells. Tilly's Catch-A-Sunbeam Coloring Book: The The Story of Solar Heat Even Grown-ups Can Understand. Solar Service Corp., Cherry Hill, N.J. 08003 1975 32 pp. $1.50 each or 50-more copies @ $.80 gr. K-8 (and up)

Humorous, appealing and highly educational coloring book on solar heating, with lesson plan for teachers.

Tresselt, Alvin. Sun Up. Lothrop, Lee and Shephard Co., Inc. 1949 24 pp. $5.49 plus .75 handling gr. K-3

Storybook with pictures tells of the sun's relationship to the activities of people and animals on a farm.

Weart, Spencer. How to Build a Sun. Coward, McCann & Geoghegan, E. Rutherford, N.J. 1971 gr. 5-12

Planetary approach to studying the sun.

WIND

DeLittle, R. J. The Windmill Yesterday and Today. John Baker, London, England. 1972

History of windmills and how they work. Illustrated with many excellent black and white photos.

Dennis, Landt. Catch the Wind. Four Winds Press, New York, N.Y. 1976 114 pp. $7.95 gr. 5 - up.

Survey on windpower in the U.S. and abroad. Examines past, present and future uses. Excellent introduction for children and adults. Illustrations and photographs.

WATER

Michaelson, David R. Oceans in Tomorrow's World: How Can We Use and Protect Them? Messner, New York, N.Y. 1972 189 pp. $4.79 gr. 5-9

A summary of current and projected methods of using the oceans as an energy source. Contains a section, "Power from the Sea," covering tidal and steam conversion.

Zim, Herbert. Waves. Morrow & Co. New York, N.Y. 1967 64 pp. $2.94 gr. 3-5

Excellent background book for understanding the potential power of the waves and the ocean. Clear, dramatic black-and-white drawings.

BIOMASS -- nothing available to date for elementary level.

Unannotated Bibliography for Elementary Level

Solar

Asimov, Issac. The Sun. Follett Publishing Co., Chicago, IL 1972. gr. 2-5

Asimov, Issac. What Makes the Sun Shine? Little, Brown & Co., Waltham, MA 1971 gr. 1-3

Carlson, B.W. and R. Wigg. We Want Sunshine In Our Houses. Abingdon Press, Nashville, TN 1973 gr. 1-3

Halacy, Daniel Jr., Fabulous Fireball. MacMillan, New York, N.Y. 1957 (1970) gr. 7 and up

Kinney, Jean. What Does the Sun Do? 1967 $5.50 PS-3

Wrigley, D. The Sun That Shone Too Much. Wheaton & Co., New York, N.Y. 1965

Zim, Herbert. The Sun. William Morrow & Co., West Caldwell, N.J. 1975 gr. 4-9

Wind

Brewer, M. Wind is Air. Child's World, Chicago, IL 1976 Preschool-3

Conger, M. Who Has Seen the Wind. Abingdon Press, Nashville, TN 1959

Grohskopf, B. Children in the Wind. Atheneum Publishers, Paterson, N.J. 1977 gr. 6-8

Hatch, S. Wind is to Feel. Coward, McCann & Geoghegan, E. Rutherford, N.J. 1973 Preschool-3

Hutchins, P. Wind Blew. MacMillan, Riverside, N.J. 1974 Preschool-2

Smith, H.E. Jr. Play With the Wind. McGraw-Hill, New York, N.Y. 1972 PS-2

GENERAL

Branley, Franklyn. Energy for the 21st Century. Thomas Crowell, New York, N.Y. 1975 85 pp. $6.50 gr. 8-12

Explains how energy is stored, ways of obtaining energy from photosynthesis, fuels from waste and the potential of solar.

Clark, Wilson. Energy for Survival: The Alternative to Extinction. Anchor Press/ Doubleday & Co., New York, N.Y. 1975 652 pp. $4.95 gr. 10-up

One of the best overall analyses of the social, environmental and economic aspects of energy. Explains conventional and renewable energy use from the Stone Age to present at a non-technical level. Includes an extensive reference guide to other sources.

Clegg, Peter. New Low-Cost Sources of Energy for the Home. Garden Way, Charlotte, VT 1975 252 pp. $7.95 gr. 10 - up

Thorough overview of current domestic renewable energy technology, presenting basic principles of solar, wind, water and wood systems. Also how to plan, design and install these systems.

Friend, Gil and David Morris. Kilowatt Counter. Alternative Sources of Energy, Milaca, MN 1975 36 pp. $2.00 gr. 9-12

Excellent reference material that defines energy and its uses, measurement, conservation, etc. Especially suited for secondary teachers and the classroom. Examines potentials of renewable energy sources.

Hayes, Denis. Rays of Hope: The Transition to a Post-Petroleum World. W. W. Norton & Co., New York, N.Y. 1977 240 pp. $3.95(pbk) gr. 11 - up.

Examines applications of solar and other renewable resources in a global transition to a post-petroleum world. The technological, economic and social problems of conventional sources versus solar are presented, with solar emerging the winner.

Leckie, Jim, Gil Masters, Harry Whitehouse and Lily Young. Other Homes and Garbage. Sierra Club Books/Scribners, New York, N.Y. 1975, '77 320 pp. $9.95 gr. 10-up

An outstanding guide to the study, design and construction (or renovation) of alternative housing that is ecologically/energy efficient. Very practical and technical with beautiful graphics, charts and tables.

Maine Audubon Society. Vocational and Industrial Arts Packets. Environmental and Energy Education Project, Maine Audubon Society, Falmouth, ME 1977 130 pp. $6.00 gr. 10-up.

A very thorough manual with sections on solar concentrators, and collectors, wood as fuel, heat loss, bio-gas, wind and water. Information for teacher and activities for students. Other curriculum packets include radient energy, photocells, heat storage, ocean thermal, energy vocabulary and conservation.

Merrill, Richard, and Tom Gage. Energy Primer Delacorte Press,245 E. 47th St., New York, N.Y. 1978 (revised, updated) 256 pp. $7.95 postpaid gr. 9-up

Comprehensive book about renewable energy resources: solar, wind, water and biofuels. Provides information on the reliability of small-scale energy systems, and includes many references.

Montana State Energy Office, Montana Renewable Energy Handbook. State Capitol Helena, MT 59601 March 1977 38 pp. gr. 10 - up.

Basic guide to renewable resource information with general interest/introductory materials. An annotated reference section included. Geared to Montana.

National Science Teachers Association. Award Winning Energy Education Activities for Elementary and High School Teachers (see Elem. pg. 1)

National Science Teachers Association. Fact Sheets on Alternative Energy Resources. DOE Technical Information Center, P.O. Box 62, Oak Ridge, TN 37830 1977 4-8 pp. Free gr. 10-12

A series of nineteen information sheets; those pertaining to renewable energy resources are #1,7,9,10,11,16-19. They provide basic facts on each subject.

Prenis, John, ed. Energy Book #1: Natural Sources and Backyard Applications Running Press, Philadelphia, PA 1975 112 pp. $4.00

Overview of possible alternative sources of energy, both practical and experimental. How-to guide for solar stills, heating systems and swimming pool heaters.

Prenis, John, ed. Energy Book #2: More Natural Sources and Backyard Applications Running Press, Philadelphia, PA 1977 125 pp. $5.00

Additional and latest developments and future possibilities for energy from renewable sources(sun, wind, methane, plants, and trash). Some applications a little more technical than Book #1.

Shuttleworth, John. Mother Earth News Handbook of Homemade Power. Bantam Books, Inc., New York, N.Y. 1974 374 pp. $2.25 gr. 7- up

Handbook of renewable energy information with innovative energy solutions. Instructions on how to build and use solar cookers, ovens and water heaters.

Stoner, Carol Hupping, ed. Producing Your Own Power. Rodale Press, Emmaus, PA 1974 Vintage Books/Random N.Y. 1975 322 pp. $8.95 (hbk)/$3.95(pbk)

Examines small-scale power structures. Explanation of how to harness energy from renewable resources, with useful suggestions for classroom and individual projects. Includes sources, conversion tables and a good bibliography.

Terry, Mark and Paul Witt. Energy and Order: A Lesson Plan. Friends of the Earth, San Francisco, CA 1976 42 pp. $3.00 gr. 10-12

Teacher's handbook contains revolutionary approach to teaching high school students about energy use. Deals with values and decision-making, including

brief, good bibliography. Outlines series of presentations and interesting activities.

Wallace, Daniel, ed. Energy We Can Live With. Rodale Press, Emmaus, PA 1976 150 pp. $3.95 (pbk)

Analysis of renewable resources including solar, wind, methane, gasohol and pedal power. A proposal to work with nature rather than against it.

Wells, Malcolm, ed. Energy Essays. Edmund Scientific, Inc., Barrington, N.J. 1976 70 pp. $5.95 (pbk) gr. 7-12

Collection of essays by many environmental management and energy theory experts about alternative sources of energy. A delightful, but serious commentary with illustrations.

SOLAR

American Association of Physics Teachers. Solar Energy: Selected Reprints. SUNY, at Stony Brook, N.Y. $7.00 gr. 12

Collected reprints of solar energy articles, valuable for independent study, research or teacher background material.

Baer, Steve. Sunspots- Collected Facts and Solar Fiction. Zomeworks, Albuquerque, NM 1977 115 pp. $4.00 (pbk) gr. 10-up

Intriguing, humorous approach to conventional and unconventional solar energy applications. Refreshing introduction to solar with simple experiments and devices that provide starting points for many science projects. Material drawn from experience in building and residing in solar heated zomes.

Boer, K.W. Solar Energy: A Promising Alternative. National Audubon Society, Educational Services, New York, N.Y. 1976 6 pp. $.35 gr. 7-12

Six-page pictorial bulletin describing the substitution of renewable resources for conventional sources. Recommended reading list included.

Branley, Franklyn. Solar Energy. (see Elem. pg. 1)

Branley, Franklyn. The Sun: Star Number One. (see Elem. pg. 1)

Brinkworth, Brian. Solar Energy for Man. Wiley and Sons, New York, N.Y. 1972 250 pp. $8.95 gr. 8-up

Comprehensive study about solar collection and conversion into heat, work and electricity. Need strong science interest to read it because quite technical.

Daniels, Farrington. Direct Use of the Sun's Energy. Ballantine Books, New York, NY 1964 271 pp. $1.95 (pbk) gr. 7-up

Excellent basic book in non-technical form on solar utilization. Covers all aspects of solar energy research and application. Dated but useful information and excellent history source.

Department of Energy. Solar Energy Project. DOE, available from: Solar Energy Project, 1424 K St., NW, 3rd Floor, Washington, D.C. 20005 1979 pages vary Free gr.7-12

Solar lessons and activities, background text, teacher and student handbooks designed to blend with existing science coursework. Should be available March '79.

EARS. Solar Directory. Environmental Action Reprint Service, Denver, CO 1975 $20.00 plus $1.50 postage gr. 12-up

Historical perspectives and background information on solar research and development. Covers period of 1974-75.

Halacy, Daniel S. Jr. The Coming Age of Solar Energy. Avon, New York, NY 1973 248 pp. $1.95(pbk)/$9.95(hbk) gr. 7-up

A popularly written historical survey of solar energy. Describes new, high-technology concepts and hardware for using the sun's energy.

Halacy, Daniel S. Jr. Solar Science Projects. (see Elem. pg. 2)

Hayes, Denis. Energy: The Solar Prospect. Worldwatch Institute, Washington, D.C. 1977 80 pp. 1-9 copies @ $2.00; 10-49 copies @ $1.50 ea.; 50 or more @ $1.00 ea.

Worldwatch Paper #11 presents a global perspective of the present and future applications of solar energy. Excellent discussion of all renewable energy forms. Well-documented.

Joint Venture and friends. Here Comes the Sun, 1981: Solar-Heated Multi-Family Housing. Joint Venture, Inc., Boulder, CO 1975 100 pp. $12.00 gr. 9-up

Solar mechanical systems described in a step-by-step process. Energy conservation measures emphasized by using multi-family housing concepts.

Keyes, John. Harnessing the Sun to Heat Your House. Morgan & Morgan, Inc., Dobbs Ferry, NY 1975 202 pp. $3.95 gr. 11-up

Description of practical methods for using the sun as a home heating source. Suitable for projects, research and/or teacher background materials.

Knight, David. Harnessing the Sun: The Story of Solar Energy. (see Elem. pg. 2)

Morris, David. Dawning of Solar Cells. Institute for Local Self-Reliance, Washington, D.C. 1976 16 pp. $2.00 gr. 9-up

Guide to the potential for generating electricity from solar energy. Basic introduction to the technology and economics of solar cells. Thorough and encouraging information about photovoltaics with economic predictions.

Norton, Thomas, et al. Solar Energy Experiments for High School and College Students. Rodale Press, Emmaus, PA 1977 129 pp. $5.95 gr. 9-up

Collection of 19 experiments and eight classroom activities designed to familiarize students with solar energy measurement, collection and use. Experiments are self-contained with own introduction and background information. Extensive reference section included.

Rankins, William and David Wilson. Practical Sun Power. Lorien House, Black Mountain, NC 1974 52 pp. $4.00 gr. 7-up

Instructions for five simple solar energy projects, including a spherical reflector, solar oven and window air heater. Includes five mini-projects.

Rankins, William III and David Wilson. The Solar Energy Notebook. Lorien House, Black Mountain, N.C. 1976 56 pp. $4.00 gr. 7-12

Basic solar energy texts, like calculation of sun's angles, mixed with solar facts and figures. Appealing graphics and imaginative approach.

Sands, Jonathon. Solar Heating Systems. Solar Systems, Danbury, N.H. 1975 46 pp. $3.00 gr. 10-12

Brief, general guide to solar systems presented in a non-technical manner. Includes basic facts for students.

Sinha, Evelyn and Bonnie McCosh. Solar Energy Technology: A State of the Art Bibliography. Ocean Engineering Information Service, La Jolla, CA 1975 63 pp. $18.00 gr. 10-adult

Intended to be an interdisciplinary guide to the status of solar energy technology. Useful in studies of applications for solar energy. Contains 547 abstracts from professional journals and reports for the period of 1969-1975.

Solar Age editors. Solar Age Catalog. Solar Age, Harrisville, N.H. 1977 232 pp. $8.50 gr. 10-up

Excellent catalog with products listed by category, including passive solar greenhouses, insulation, glazing, collectors, solar cells and much more. Well-written introductions precede each category. Includes resource, service and information directory.

Weart, Spencer. How To Build A Sun. (see Elem. pg. 3)

Williams, J. Richard. Solar Energy: Technology and Applications. Ann Arbor Science Publishers, Ann Arbor, MI 174 pp. $9.95(hbk)/$6.95(pbk) gr. 10-12

Basic information on the techniques, equipment practicality and comparative costs of solar energy for a myriad of applications. Includes recent research breakthroughs and technological improvements.

Wohlrabe, Raymond. Exploring Solar Energy. The World Publishing Co., New York, N.Y. 1966 87 pp. $2.96 gr. 5-9

Starts with history of ancient sun worshippers and progresses to present and future uses of solar energy. Follows 'current' solar projects around the world from India to California. Well-illustrated.

WIND

Beedell, Suzanne. Windmills. Charles Scribner's Sons, New York, N.Y. 1975 143 pp. $12.00

Interesting text and outstanding photographs describe the history, structure and modern use of various types of European and American windmills.

Burke, Barbara and R.N. Meroney. Energy from the Wind: Annotated Bibliography. Engineering Research Center, Colorado State University, Fort Collins, CO 1975, 1977 revised. $15.00 gr. 11-12

Contains annotated references to books, articles, conferences and technical reports on wind generated electricity. Sources include homebuilt projects, advanced technical studies and reports on large-scale production.

Coonley, Douglas. An Introduction to the Use of Wind. Total Environmental Action, Harrisville, NH 1974 22 pp. $2.00

A brief outline of wind energy use principles.

Dennis, Landt. Catch the Wind. (see Elem. pg. 3)

Eldridge, Frank. Wind Machines. National Science Foundation, Washington, D.C. 1976 78 pp. $3.00

Best available overview on wind machines with photos, illustrations, and diagrams. Describes history, potential, applications, performance and system design of wind machines.

Golding, E. W. The Generation of Electricity by Wind Power. National Energy Book Service, 143 Maple Road, Surbiton, Surrey KT64BH United Kingdom, 1976 344 pp. $9.00

Comprehensive details on all aspects of wind machines; history, energy available, sites, structure, generators and economics.
(also printed in 1955 by Philosophical Library, N.Y.)

Hackleman, Michael. The Homebuilt, Wind-Generated Electricity Handbook. Earthmind/ Peace Press, Culver City, CA 1975 194 pp. $7.95 gr. 8-12

Practical information on the restoration of discarded wind generators, and designing and installing of towers, wind machines, and generating equipment. Entertaining and will-illustrated, written for the lay-person. "Information bonanza for wind power enthusiasts" --EARS

Hackleman, Michael and David House. Wind and Windspinners. Peace Press, Culver City, CA 1974 (Earthmind, Mariposa, CA 1975 update newsletter). 140 pp. $7.95 (pbk) gr. 8-up

A manual presenting the basics of wind-to-electricity energy conversion. Virtually every aspect of wind power is discussed (theory, planning, construction, operation) in understandable, technically competent manner. Sources and references included.

Park, Jack. Simplified Wind Power Systems for Experimenters. Helion, P.O. Box 445 Brownsville, CA 95919 1975 80 pp. $6.00 (pbk)

Very complete guide to design and construction of wind machines. Delineates the planning and designing of a wind-powered energy system. Presented in step-by-step fashion, well-illustrated and easy to read. Excellent basic book.

Preston, Hayter. Windmills. Gale Research Co., Detroit, MI 1975 $14.00 gr. 9-up

The history of windpower, including descriptions and illustrations on old European windmills which teamed aesthetics with usefulness.

Putnam, Palmer. Power from the Wind. Van Nostrand Reinhold, New York, NY 1948 224 pp. $9.95

A classic study telling about the experimental program of putting a Smith-Putnam Wind-Turbine(175-foot, 1250-kilowatt unit) on Grandpa's Knob, Vermont. Also describes basic principles of wind power.

Simmons, Daniel. Wind Power. Noyes Data Corp., Park Ridge, NJ 1975 300 pp. $24.00 gr. 12-up

The technology and economics of wind-powered energy systems being developed domestically and overseas.

Wolff, Ben. Wind Energy Bibliography. Windworks, Box 44A, Rte. 3, Mukwonago, WI 53149 1976(revised) 68 pp. $3.00 gr. 9-adult

Collection of books, articles and papers dealing with wind energy and related renewable energy sources.

WATER

Michaelson, David. The Oceans in Tomorrow's World: How Can We Use and Protect Them? (see Elem. pg. 4)

BIOMASS

Shelton, Jay and Andrew Shapiro. The Woodburner's Encyclopedia. Vermont Crossroads Press, Waitsfield, VT 1976 156 pp. $6.95(pbk) gr. 10-up

Comprehensive and informative book about wood as energy. Clear, detailed text answers questions about feasibility, safety, costs, installation and operation of wood heating.

Vivian, John. Wood Heat. Rodale Press, Emmaus, PA 1976 336 pp. $8.95/$4.95(pbk) gr. 11-up

A non-technical book on the use of wood stoves, furnaces and heaters. Shows how to install, maintain and operate wood heaters for maximum efficiency. Very complete on wood burning stoves and fireplaces.

Unannotated Bibliography for Secondary Level

Coonley, Douglas. What Do You Know About the Wind? Franklin Institute Press, Philadelphia, PA 1977 gr. 7-12

Grohskopf, B. Children in the Wind. Atheneum Publishers, Paterson, NJ 1977 gr. 6-8

Halacy, Daniel S. Jr. The Energy Trap. Four Winds Press, New York, NY 1975 $5.95 gr. 7-up 143 pp.

Hogner, D.C. Water Over the Dam. J.B. Lippincott, Philadelphia, PA 1960 gr. 7-9

Zarem, A.Z. Introduction to the Utilization of Solar Energy. McGraw-Hill, New York, NY 1963 $13.50

GENERAL

Clark, Wilson. Energy for Survival: the Alternative to Extinction. (see Secondary pg. 5)

Clegg, Peter. New Low-Cost Sources of Energy for the Home. (see Secondary pg. 5)

Commoner, Barry. The Poverty of Power. Bantam Books, New York, NY 1976 314 pp. $2.25

Excellent in-depth analysis of energy problems, the economic crisis, and environmental/social implications. Examines our use and misuse of fossil fuels, the economically disastrous nuclear program(capital versus labor), solar development as an abundant and economic power and the need to rethink our lifestyles and uses of power. Required reading.

Eccli, Eugene, ed. Low-Cost Energy-Efficient Shelter for the Owner and Builder. Rodale Press, Emmaus, PA 1976 408 pp. $5.95(pbk)/$10.95(hbk)

Thorough description of specific energy-saving cost-cutting methods when building or renovating a home. Good articles by experts on financing, design, codes, construction, insulation, etc. Excellent resource for college courses.

Halacy, Daniel Jr. Earth, Water, Wind and Sun. Harper & Row, New York, NY 1977 186 pp. $8.95

Historical development and use of renewable resources with information on potential uses of renewable energy resources. Includes data on costs, feasibility, and environmental impacts.

Hayes, Denis. Rays of Hope. (see Secondary pg. 5)

Leckie, Jim et al. Other Homes and Garbage. (see Secondary pg. 5)

Lovins, Amory. Soft Energy Paths: Toward a Durable Peace. Ballinger/Friends of the Earth, Cambridge, MA 1977 231 pp. $6.95

Presents the consequences of choosing between a path of soft technologies(renewable resources) and hard technologies(fossil and nuclear fuels) for our energy future. Compares capital costs of available technologies and studies the related socio-politics, values and nuclear proliferation.

Lyons, Stephen, ed. SUN! A Handbook for the Solar Decade. Friends of the Earth/Solar Action, Inc., San Francisco, CA 1978 370 pp. $2.95

Collection of articles on renewable resources by numerous experts in the field. Covers energy policy in social context, solar energy and its use, and the steps to be taken for a solar future.

Maine Audubon Society. Vocational and Industrial Arts Packets. (see Secondary pg. 5)

Merrill, Richard and Tom Gage. Energy Primer. (see Secondary pg. 6)

Montana State Energy Office. Montana Renewable Energy Handbook. (see Secondary pg. 6)

Prenis, John, ed. Energy Book #1: Natural Sources and Backyard Applications. (see Secondary pg. 6)

Prenis, John, ed. Energy Book #2: More Natural Sources and Backyard Applications. (see Secondary pg. 6)

RAIN editors. Rainbook: Resources for Appropriate Technology. RAIN: Journal of Appropriate Technology, Portland, OR 1977 256 pp. $7.95

Extremely useful reference book on all renewable energy subjects. Extensive listing of sources and descriptions is selected from the last two-and-a-half years of RAIN magazines. Great graphics are abundant throughout.

Shuttleworth, John. Mother Earth News Handbook of Homemade Power. (see Secondary pg. 6)

Skurka, Norma and Jon Naar. Design for a Limited Planet: Living with Natural Energy. Ballantine Books, New York, NY 1976 215 pp. $5.95

Text, diagrams and photos provide a close look at houses that use all forms of renewable energy. People who have designed or built their solar homes are interviewed. Helpful resource lists included.

Stoner, Carol Hupping, ed. Producing Your Own Power. (see Secondary pg. 6)

Wallace, Daniel. Energy We Can Live With. (see Secondary pg. 7)

SOLAR

Anderson, Bruce. Solar Energy and Shelter Design. Total Environmental Action, Inc., Harrisville, NH 1973 150 pp. $7.00

Discusses energy conservation and ways of using solar energy, with specific projects and many useful references. Used as a college text.

Anderson, Bruce. Solar Energy: Fundamentals in Building Design. McGraw-Hill, New York, NY 1977 374 pp. $21.50(hbk)

Authoritative text with practical information on how to maximize solar energy's utilization in buildings. Ceared to professional architectural designers and engineers, but also adaptable to classroom use.

Anderson, Bruce and Michael Riordan. The Solar Home Book. Cheshire Books, Harrisville, NH 1976 304 pp. $8.50(pbk)

A unique, extremely informative, practical book covering energy conservation, passive solar design and active solar systems all in a single, clearly written volume. Both large and small scale projects are discussed. Most comprehensive source to date. Widely used as a college textbook.

Baer, Steve. Sunspots-Collected Facts and Solar Fiction. (see Secondary pg. 7)

Behrman, Daniel. Solar Energy: The Awakening Science. Little, Brown & Co., Boston, MA 1976 408 pp. $12.50 (or $10.50 from: Wilderness Society Book Service, 40 Guernsey St., Stamford, CT 06004)

History and principles behind solar energy usage. Describes both large and small scale applications, and assesses future possibilities.

Brace Research Institute. Survey of Solar Agricultural Dryers. Brace Research Institute, MacDonald College of McGill University, Ste. Anne de Bellevue 800, Quebec, Canada 1975 170 pp. $7.00

Excellent descriptions of 24 different crop, food and lumber dryers. Photos, diagrams and cost estimates included.

Brinkworth, Brian. Solar Energy for Man. (see Secondary pg. 7)

Carlson, Bradley. Solar Primer One. SOLARC, Whittier, CA 1975 101 pp. $8.95

Presents information on basic solar applications and building design. Written by architects.

Crowther, Richard et al. Sun Earth. Crowther/Solar Group, Denver, CO 1976 232 pp. $13.00(pbk)

Considered to be the sourcebook for passive solar building design information. Hundreds of illustrations on how the house and site can act as a solar collector.

Daniels, Farrington. Direct Use of the Sun's Energy. (see Secondary pg. 7)

Daniels, George. Solar Homes and Sun Heating. Harper & Row, New York, NY 1976 178 pp. $8.95

Practical guide to solar heating for the layman. Non-technical descriptions of basic principles, existing systems and techniques for construction and installation.

Dawson, Joe. Buying Solar. Federal Energy Administration and H.E.W. Office of Consumer Affairs, available from: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 Stock no. 041-018-00120-4 $1.85 June 1976 71 pp.

Presents solar facts and figures important to students as well as consumers. A clearly written guide with good advice and intelligent tips on what to be aware of when considering solar systems and the purchase thereof. Charts, tables and solar radiation maps included.

de Winter, Francis. How to Design and Build a Solar Swimming Pool Heater. Copper Development Association, New York, NY 1975 46 pp. Free

Contains useful information on collector design, construction and economics although oriented specifically to copper, flat-plate water heating collectors.

Duffie, John and William Beckman. Solar Energy Thermal Processes. Wiley and Sons, New York, NY 1974 386 pp. $19.00

Advanced textbook restricted to thermal processes in which solar radiation is absorbed by a surface and converted to heat. Emphasis is on solar meeting thermal energy needs in buildings. Primarily for engineers.

EARS. Solar Directory. (see Secondary pg. 8)

Ewers, William. Solar Energy: A Biased Guide. Domus International, Library of Ecology, Northbrook, IL 1977 96 pp. $4.95

Purpose is to increase public awareness of solar potential and its effective utilization. Non-technical approach with clear diagrams of solar applications and an historical outline of solar development.

Fisher, Rick and Bill Yanda. The Food and Heat Producing Solar Greenhouse: Design, Construction, Operation. John Muir Publications, P.O. Box 613, Sante Fe, NM 87501 1976 162 pp. $6.00(pbk)

Describes the design, construction and operation of a variety of attached solar greenhouses. Illustrated with photos and diagrams of assorted installations as well as sun movement charts. Excellent introduction to the subject.

Fleck, Paul et al. Solar Energy Handbook. Time-Wise Publications, Pasadena, CA 1975 92 pp. $3.95

For the designer and serious experimenter, this small solar facts-book provides scientific and engineering definitions and units to aid in constructing solar devices. Also includes cost equivalents and contacts to solar energy organizations. Understandable and instructive.

Gropp, Louis. Solar Houses: 48 Energy-Saving Designs. Pantheon Books(Random House), New York, NY 1978 160 pp. $8.95(pbk)

Nation-wide look at new solar homes. Discusses passive, active and underground designs. Includes sections on demonstration houses, retrofitting, insulation, as well as solar terms, legislation and other important items. Vividly illustrated with full-color and b&w photos and diagrams.

Halacy, Daniel Jr. The Coming Age of Solar Energy. (see Secondary pg. 8)

Hayes, Denis. Energy: The Solar Prospect. (see Secondary pg. 8)

Hickok, Floyd. Handbook of Solar and Wind Energy. Cahners Books, Boston, MA 1975 125 pp. $20.00

Explores the development of renewable energy resources, postulating that all solar sources will increasingly be used as entrepeneurs discover and exploit them. Provides an overview of solar heating and cooling and related technologies.

Hovel, H.J. Solar Cells. Academic Press 1975 250 pp. $14.50

Technical information on photovoltaics(solar cells).

Joint Venture and Friends. Here Comes the Sun, 1981: Solar-Heated Multi-Family Housing. (see Secondary pg. 8)

Keyes, John. Harnessing the Sun to Heat Your House. (see Secondary pg. 8)

Kreider, Jan and Frank Kreith. Solar Heating and Cooling: Engineering, Practical Design and Economics. McGraw-Hill, New York, NY 1975 342 pp. $24.75

How-to handbook on solar heating and cooling systems with extensive tables, charts and graph materials. Thorough, detailed and meant for engineers.

Kreith, Frank and Jan Kreider. Principles of Solar Engineering. McGraw-Hill, New York, NY 1977 600 pp. $24.50

An engineering text presenting all aspects of solar energy utilization in a teachable framework. Appropriate for college seniors, graduate students and practicing engineers.

Landa, H.C. et al. The Solar Energy Handbook. Film Instruction Company of America, Milwaukee, WI 1977 154 pp. $9.00

A compilation of theory, technical data and practical moderate-size applications. Much of this data has been used in texts and related technical books.

Lucas, Ted. How to Use Solar Energy. Ward Ritchie Press, Pasadena, CA 1977 315 pp. $7.95

Practical, basic guide to building and buying solar collectors. Includes bibliography, glossary and list of manufacturers.

McCullagh, James. The Solar Greenhouse Book. Rodale Press, Emmaus, PA 1978 314 pp. $8.95(pbk)/$10.95(hbk)

The most comprehensive book to date on designing and constructing solar greenhouses. Also offers a thorough discussion of crop production and the biological implications of solar greenhouses. Resplendent with photos and diagrams illustrating a wide variety of structures in use all over the country, adapted to every kind of home, climate and need.

McVeigh, J.C. Sun Power: An Introduction to the Applications of Solar Energy. Pergamon Press, New York, NY 1977 180 pp. $4.95

Analyzes all aspects of solar energy and its global applications. Includes thermal and small scale applications, photovoltaics, biological conversion systems, photochemistry and wind power.

Mazria, Edward. The Passive Solar Energy Book. Rodale Press, Emmaus, PA 1979 Trade: 300-450 pp. $10.95(pbk) $12.95(hbk)//Professional: 450-550 pp. $19.95(hbk)

A workbook discussing many passive solar energy systems. Begins with general solar theory, then proceeds into 27 specific design patterns. Two separate editions will be published by Spring '79; trade copy for the layman and a more technical and expanded version for professionals and architecture students.

Meinel, Adel and Marjorie Meinel. Applied Solar Energy: An Introduction. Addison-Wesley, Reading, MA 1976 651 pp. $17.95

Basic textbook introduction to the theory of solar energy. Intended for college seniors and graduate students.

Merrigan, Joseph. Sunlight to Electricity--The Prospects for Solar Energy Conversion by Photovoltaics. Massachusetts Institute Technology Press, Cambridge, MA 1975 163 pp. $12.95

Covers the fundamentals of photovoltaic conversion as well as offering technological forecasts with market analysis and economics to predict future business opportunities.

Morris, David. Dawning of Solar Cells. (see Secondary pg. 8)

Norton, Thomas W. Solar Energy Experiments for High School and College Students. (see Secondary pg. 8)

Office of Technology Assessment. Application of Solar Technology to Today's Energy Needs. OTA, U.S. Congress, available from: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 Vol. I: June 1978 525 pp. $7.00 Stock no. 052-003-00539; Vol. II: Sept. 1978 756 pp. $7.00 Stock no. 052-003-00608

Volume I is policy-oriented and presents an overview of major impacts and constraints on solar markets. Summarizes the analysis of system performance and costs, and reviews direct solar technology. Volume II is very technical and composed almost entirely of charts and tables. Discusses analytical methods and systems analysis. Both are definitely geared to the serious student and solar enthusiast. A thorough treatment of the subject.

Palz, W. Solar Electricity: An Economic Approach to Solar Energy. Butterworth, Kent, England. 1977 352 pp.

All known ways of converting the sun's radiation into useful power, including technology, cost projections and latest R&D. Assesses future impact of solar on developing and industrialized countries.

Rankins, William and David Wilson. Practical Sun Power. (see Secondary pg. 9)

Sands, Jonathon. Solar Heating Systems. (see Secondary pg. 9)

Schwartz, Marris Sokol, ed. Harvesting the Sun's Energy. Design III Printing, Fullerton, CA 1975 653 pp. $8.00

Compendium of valuable technical information.

Scully, Dan, Don Prowler and Bruce Anderson. The Fuel Savers: A Kit of Solar Ideas for Existing Homes. Cheshire Books, Harrisville, NH 1978 60 pp. $2.75

Eighteen affordable ways to use solar energy in the home. Do-it-yourself guide to low-cost solar retrofitting. Cleverly illustrated, handy size.

Shurcliff, William. Thermal Shutters and Shades. William Shurcliff, 19 Appleton St., Cambridge, MA 02138 1977 200 pp. $12.00

Over 100 ideas about passive solar heating and reducing heat loss through windows.

Sinha, Evelyn and Bonnie McCosh. Solar Energy Technology: A State of the Art Bibliography. (see Secondary pg. 9)

Solar Age editors. Solar Age Catalog. (see Secondary pg. 9)

Stromberg, R.P. and S.O. Woodall. Passive Solar Building: A Compilation of Data and Results. NTIS, U.S. Dept. of Commerce, Springfield, VA 1977 71 pp. $5.25

Considered the best overview of passive solar heating available to date. Includes design examples and sources of additional information.

Szokolay, S.V. Solar Energy and Building. Wiley and Sons, New York, NY 1975 148 pp. $18.50

Survey of solar heating and cooling techniques. Provides a conceptual understanding of the problems and solutions of solar energy. Contains illustrated architectural review of solar houses including plans and performance data.

TEA, Inc. Solar Energy Home Design in Four Climates. Total Environmental Action, Harrisville, NH 1975 200 pp. $12.75

Explains engineering and design methods for solar homes in climatically different regions of the country to illustrate commercial feasibility of solar heating. Extensive tables and references. An architectural background is helpful.

Turner, Rufus P. Solar Cells and Photocells. Howard W. Sams & Company, Indianapolis, IN 1975 96 pp. $3.95

Intended for experimenters, technicians and science fair participants. Gives schematics for operating circuits.

Watson, Donald. Designing and Building a Solar House: Your Place in the Sun. Garden Way Publishing, Charlotte, VT 1977 282 pp. $8.95

Details for workable, energy-efficient solar homes. Many drawings, graphs and photos clarify passive and active solar heating and cooling systems, and house design. Cost comparison of different systems included.

Williams, J. Richard. Solar Energy: Technology and Applications. (see Secondary pg. 9)

Wilson, David. Creating Energy. Lorien House, Black Mountain, NC 1978 56 pp. $5.00(pbk

A collection of projects including ways to concentrate the sun's energy to make steam, to construct a solar furnace and to experiment with solar cells.

Wright, David. Natural Solar Architecture: a passive primer. Litton Educational Publishing, Inc., New York, NY 1978 245 pp. $7.95(pbk)

Technical and nontechnical information on how to effectively use passive (direct) solar in architecture. Explains basic solar concepts and its uses in heating and cooling homes and buildings. Text, drawings and diagrams bear the mark of a draftsman. Aimed at students and professionals.

Yanda, Bill and Susan. An Attached Solar Greenhouse. The Lightning Tree, P.O. Box 1837, Santa Fe, NM 87501 1976 20 pp. $2.00

Well-illustrated manual for an owner-built greenhouse. Takes into account solar angle, insulation, foundation, design, construction and operation. Written in English and Spanish.

Yellott, John and Carl MacPhee. Solar Energy Utilization for Heating and Cooling. Total Environmental Action, Harrisville, NH 1974 20 pp. $2.00

An introduction to the technical and engineering aspects of using solar energy.

WIND

Beedell, Suzanne. Windmills. (see Secondary pg. 9)

Burke, Barbara and R.N. Meroney. Energy from the Wind: Annotated Bibliography. (see Secondary pg. 10)

Clews, Henry. Electric Power from the Wind. Solar Wind Publications, P.O. Box 420, Norwich, VT 1973 40 pp. $2.00

Basic, introductory, non-technical publication dealing with domestic-scale wind electric plants. Includes price list of commercial units.
(from the same author: Planning a Wind Powered Generating System. Enertech Corp., Box 420, Norwich, VT 05055 1977 46 pp. $2.00)

Coonley, Douglas. An Introduction to the Use of Wind. (see Secondary pg. 10)

Coonley, Douglas. Design with Wind. Total Environmental Action, Harrisville, NH 1974 148 pp. $8.00

Explores the creative use of wind in building designs. Step-by-step descriptions of maximizing wind energy output for different locations and types of wind systems. Includes charts, tables, photographs and resource list of manufacturers and designers

Dennis, Landt. Catch the Wind. (see Elem. pg. 3)

Eldridge, Frank. Wind Machines. (see Secondary pg. 10)

Golding, E.W. The Generation of Electricity by Wind Power. Halsted Books, Wiley and Sons, New York, NY 1976 344 pp. $19.00(hbk)

Definitive research on wind power by the late E.W. Golding with additional chapters by R.I. Harris. Comprehensive details on all aspects of wind machines: history, available energy, sites, structure, generators and economics. British publication.

Hackleman, Michael. The Homebuilt, Wind-Generated Electricity Handbook. (see Secondary pg. 10)

Hackleman, Michael and David House. Wind & Windspinners. (see Secondary pg. 10)

McGuigan, Dermot. Harnessing the Wind for Home Energy. Garden Way Publishing, Charlotte, VT 1978 128 pp. $4.95

Presents all sides to wind power and considers potential of a site, costs and payback. Identifies many types of wind machines now on the market. Includes an annotated list of manufacturers, restorers, agents and bibliography. Very readable.

Park, Jack. Simplified Wind Power Systems for Experimenters. (see Secondary pg. 10)

Preston, Hayter. Windmills. (see Secondary pg. 11)

Putnam, Palmer. Power from the Wind. (see Secondary pg. 11)

Reynolds, John. Windmills and Watermills. Praeger Publishers, New York, NY 1975 196 pp. $8.95

Photographs, diagrams and detailed descriptions of mechanical power-producing windmills and watermills around the world.

Simmons, Daniel. Wind Power. (see Secondary pg. 11)

Torrey, Volta. Wind-Catchers: American Windmills of Yesterday and Tomorrow. Stephen Greene Press, Brattleboro, VT 1976 226 pp. $12.95(hbd)

Colorful history of windmills with particular emphasis on American windmills, describing their design, specifications and capabilities. Very readable commentary on pioneering in this field.

Wolff, Ben and Hans Meyer. Wind Energy. Windworks, Inc., Box 44A, Rte. 3, Mukwonago, WI 53149 1977 64 pp. $8.50

Describes different means of capturing and storing wind energy with technical diagrams and illustrations.

Wolff, Ben. Wind Energy Bibliography. (see Secondary pg. 11)

WATER

Hagen, Arthur. Thermal Energy from the Sea. Noyes Data Corp., Park Ridge, NJ 1976 150 pp. $24.00

Describes continuing R&D on technical feasibility and economic viability of generating either electricity or hydrogen by harnessing the temperature gradients in the sea. Provides condensed data base to aid in proof-of-concept experiments.

McGuigan, Dermot. Harnessing Water Power for Home Energy. Garden Way Publishing, Charlotte, VT 1977 128 pp. $4.95

Excellent sourcebook explaining how to estimate the power in a stream, where to obtain suitable equipment to harness it and at what price.

Reynolds, John. Windmills and Watermills. (see College pg. 19)

BIOMASS

Auerbach, Les. A Homesite Power Unit: Methane Generator. Alternative Energy Systems, Madison, CT 1973 50 pp. $5.00(pbk)

Report is to aid in the building of Home Power Units which are successfully operating in India and other areas of the world. Includes plans, design, construction and operation of the units.

Bio-Gas of Colorado. Methane on the Move: Small Anaerobic Digesters. Bio-Gas of Colorado, Arvada, CO 1977 96 pp. $2.00(pbk)

Description of experiments testing economic feasibility of building digesters on a small or self-sufficient scale.

DeRenzo, Dorothy. Energy from Bioconversion of Waste Materials. Noyes Data Corp., Park Ridge, NJ 1977 233 pp. $32.00

Describes practical arrangements and equipment, large and small, for the anaerobic decomposition of organic wastes to produce methane gas. Provides partial solutions to energy and solid waste problems.

Fry, John and Richard Merrill. Methane Digesters for Fuel Gas and Fertilizer. New Alchemy Institute, Woods Hole, MA 1973 47 pp. $3.00(pbk)

Describes small-scale methane generators using very low technology and readily

Fry, John. Practical Building of Methane Power Plants for Rural Energy Independence. Standard Printing, Santa Barbara, CA 1974 96 pp. $12.00(pbk)

First practical book on how to design and build a displacement-type methane-generating plant. Includes working diagrams, directions for operation and the solutions to problems with methane power plants.

Gay, Larry. The Complete Book of Heating with Wood. Garden Way Publishing, Charlotte, VT 1974 128 pp. $3.95(pbk)

Basic information on all aspects of wood for burning, wood stoves and heat exchangers. Details on wood preparation, ventilation and humidity, and wasted energy.

House, David. The Compleat Biogas Handbook. At Home Everywhere #5, Rt. 2 Box 259, Aurora, OR 97002 1978 400 pp. $8.00(pbk)

Good starting point to learn about generating gas from animal and plant wastes. Also a good resource for the serious student, with extensive data and specific information.

Kern, Ken and Steve Magers. Fireplaces. Owner Builder Publications, Box 550, Oakhurst, CA 93644 1978 $7.00(pbk)

A persuasive presentation to reinstate the art of fireplace building with heat-conserving designs. Thorough research and years of experimenting with fireplace design and construction support their approach. Large format, clear photos and many excellent drawings. Briefly discusses "firespace" concept as well.

Lincoln, John. Methanol and Other Ways Around the Gas Pump. Garden Way Publishing, Charlotte, VT 1976 134 pp. $4.95(pbk)

Describes the use of methanol in cars, fuels of the future, how other nations dealt with gasoline shortages and ways to avoid depending on gasoline.

Robertson, E.E. Bioconversion. 1977 64 pp. $8.50

Explores the possibilities for returning to biological sources for energy utilization.

Ross, Bob and Carol. Modern and Classic Woodburning Stoves. Overlook Press, Woodstock,NY 1978 $4.95(pbk)

All aspects of woodburning stoves are covered: basic principles, selection, operation, various makes and models. Touches on relationship of woodburning and the energy crisis

Self, Charles. Wood Heating Handbook. TAB Books, Blue Ridge Summit, PA 1977 $5.95

Complete information from planning and installation of wood-burning stoves, fireplaces and chimneys to types and preparation of wood. Well-written and concise with detailed diagrams, illustrations and photographs.

Shelton, Jay and Andrew Shapiro. The Woodburner's Encyclopedia. (see Secondary pg. 11)

Vivian, John. Wood Heat. (see Secondary pg. 11)

Brandt, Barbara. Solar Energy: Putting the Sun To Work. Solar Booksmith, 21 Burnside Ave., Somerville, MA 02144 1978 32 pp. $3.50 post-paid(pbk) gr. 4-up

An introduction to solar energy for all ages. Text describes the various forms and uses of solar power. Large format, colorfully illustrated.

Grossman, Richard and Gail Daneker. Jobs and Energy. Environmentalists for Full Employment, 1785 Massachusetts Ave., N.W., Washington, D.C. 20036 1977 21 pp. $2.00

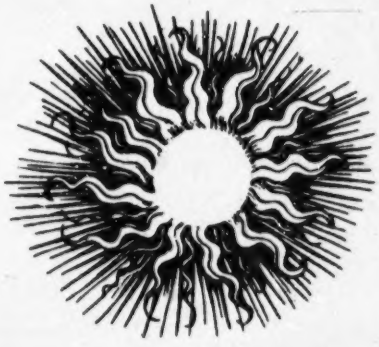
Highly recommended booklet examining energy and the economy. Asserts and documents how increased energy efficiency, conservation and the use of solar energy will create more jobs and a more stable economy. (Spring 1978 update available $.50)

National Council of Churches. Energy and Ethics. NCC, Energy Education Project, 475 Riverside Dr., Rm. 572, New York, NY 10027 Feb. 1979 30 pp. Price undecided.

A study of the relationship of ethics and energy issues.

Sayigh, A. Solar Energy Engineering. Academic Press, New York, NY 1977 506 pp. $39.75(hb)

Aimed at advanced engineering students and professionals. Technical selections about solar engineering in storage, conversion, economics and other areas written by such authorities as Yelliot, Meinel and Backus.



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* Many universities have film catalogues which may be available upon request.

FILMS -- All are 16 mm with sound, unless otherwise noted. All known details are listed.

GENERAL RENEWABLE ENERGY

"Coping with Tomorrow: Solar Energy" ACI Media, Inc.
Rental: $35/day 20 min. color gr. 9-12
Purchase: $340

Discusses the sun as the historical heat source and illustrates modern uses of its power. Environmental advantages of solar and other natural power are emphasized.

"Design for Climate" Office of Counsellor (Scientific), Australian Embassy
21 min. color 1967

Describes how architects and engineers can control various natural elements (wind, sun, rain) and maintain comfortable indoor climate.

"Energy and Power: A First Look" Journal Films, Inc. 930 Pinter Ave., Evanston, IL 68202
Purchase: $135 gr. 1-6

Introduces how man harnesses energy and increases his capacity to do work. Emphasizes the early discoveries of simple machines and utilization of renewable resources.

"Energy: New Sources" Churchill Films (#3 of 4-part series)
Rental: $21 20 min. color gr. 9-adult
Purchase: $250

Describes uses of solar cells, panels for hot water and temperature control in buildings, and heat for generating electricity. Briefly covers wind, tides and methane.

"Energy: The Problems and the Future" National Geographic Educational Services
Rental: for 3 day/8 day (call Karol Media (201) 262-4170)
Purchase: $310 23 min color 1978 gr. 7-12
(in videocassette)

Examines the potential of nonpolluting, renewable energy resources found in the four basic elements--water, earth, wind and fire from the sun. Solar projects all over the world are shown, demonstrating the feasibility of a variety of systems, including tidal, wind and passive power.

"Power Without End" Xerox Education Productions
Purchase: $270 gr. 9-12

Explores renewable resources (sun, wind, tides and hydro) and how science has succeeded in harnessing these energy sources.

"Putting Energy Alternatives to Work" American Film House, Inc., 566 Ann Street, Birmingham, MI 48009
Rental: $25 15 min. color 1976
Purchase: $185

Documents 1976 Upland Hills Alternative Energy Workshop in Michigan where simple solar and wind power applications and production of methane gas from animal waste were studied. Suggestions for energy-conscious alternatives to fossil fuels.

Films GENERAL cont'd

"The New Western Energy Show" New Western Energy Show, 226 Power Block, Helena, MT (406) 443-7272 59601

Rental: $45/3 days
Purchase: $475 35 min. color all ages

Documents a Montana-based performing arts group that promotes renewable energy. Shows behind-the-scenes building of displays, scenery, writing and rehearsing energy skits and music. Then joins the audiences of children and adults as they watch several skits and participate in workshops.

"Solar Energy: The Great Adventure" U.S. Dept. of Energy Film Library - TIC
Free loan 27 min. color 1978 gr. 7-adult

Through series of interviews with people working with all forms of solar energy--sun, wind, water and biomass--the message comes through that solar is ready now. Shows rural and urban projects all over the country with emphasis on small-scale, decentralized methods. Narrated by Eddie Albert.

"The Sunbeam Solution" Time-Life Multimedia (produced by BBC-TV)
Rental: $40 38 min. color 1974 gr. 8-adult
Purchase: $425 (Film), $215 (Videocassette)

Looks at past efforts that have become insufficient to fulfill present energy needs. Examines renewable sources of power which remain untapped, including sun, wind and tidal power.

SOLAR

"A Place to Live" Fred James/Lumen-Bel, Inc., 303 W. 11th St., Box 311, New York (212) 675-2582 NY 10014

Rental: $75 24 min. color 1978 gr. 9-adult
Purchase: $375

Documentary about the Shelter Institute of Bath, Maine, where interested individuals learn how to build their own energy-efficient home for the cost of a normal down-payment. Passive design, how the sun heats and cools a structure, is carefully explained.

"Build Your Own Greenhouse--Solar Style" Danamar Film Productions, Los Alamos, NM (505) 672-9766

Purchase: $315 21 min color 1978

Presents an innovative approach to obtaining free heat from the sun and fresh food for the table. Shows a group of volunteers building an attached solar greenhouse, and explains basic principles and building techniques. Interesting and fun.

"Desert Cloud" Bullfrog Films, Inc.
Rental: $28.50 18 min. color 1977
Purchase: $250

A solar air structure self-inflates and rises from the desert floor of Kuwait. An inspirational example of passive solar principles, giving form to solar energy and making it visible.

"Energy: A First Film" BFA Educational Media
Rental: $15 8 min. color 1971 gr. K-6
Purchase: $125

Illustrates that the sun provides most of our energy. Shows how green plants use solar rays to produce food.

Films SOLAR cont'd

"Energy for the Future" P.R.L.
Rental: $21 17 min. color gr. 10-college
Purchase: $220 (from Britanica Educational Corporation)

Features alternative energy utilization, primarily focusing on solar technologies.

"Energy from the Sun" Encyclopedia Britannica Education Corp.
Purchase: $70 11 min. Black & White 1955

Illustrates importance of the sun as the earth's major energy source. Describes photosynthesis, present and future uses of solar energy. Beware: Quite dated.

"Energy: Harnessing the Sun" University of California, Media Extension Center
Rental: $20 19 min. color gr. 7-adult
Purchase: $255 (from Sterling Educational Films, 241 E. 34th St., NY, NY 10016)

Simple introduction to various forms of solar energy utilization, both natural and technological. Interviews with experts highlight solar's role to meet global energy needs.

"Food: Energy from the Sun" BFA Educational Media
Rental: $15/3 days 10 min. color 1966 gr. 4-9
Purchase: $125

Presents the concept of living things' dependency upon the sun as the main source of energy. Follows food chains that begin with solar energy and end with humans.

"Food from the Sun" Encyclopedia Britannica Education Corp.
Rental: $12/3 days; $2 ea. additional day
Purchase: $150 9 min. color 1966 gr. K-3

Demonstrations and animation show young children how all life on earth relies on the sun's energy. Shows basic processes of energy conversion and storage in food.

"Gift from the Sun" UNITL Film Producers
Rental: $15 13 min. color

Describes the solar heated and cooled environmental education center built by the community in Somerset County, New Jersey.

"Green Plants and Sunlight" Encyclopedia Britannica Education Corp.
Purchase: $150 gr. 4-6

Shows how green plants manufacture food from the sun's rays. Points out human dependence on this process, one which cannot be duplicated in the laboratory.

"Here Comes the Sun" U.S. Dept. of Energy Film Library - TIC
Free Loan 15 min. color 1974 gr. 7-12

Shows various solar energy systems at work, producing heat for swimming pools, dishwashers and storage tanks.

"How to Make a Solar Heater" Handel Film Corporation
Purchase: $290 20 min. color 1976 gr. 7-adult

Explains the principle of solar energy applications. Presents step-by-step construction of a functional solar heater costing less than $100. Do-it-yourself approach suggests a classroom project.

Films SOLAR cont'd

"Japan and the Sun" Association Films, Inc., 866 Third Ave., New York, NY 10022
27 min. color gr. 7-adult

Shows the major role the sun plays in Japanese life, and their efforts to create new ways to harness it. Focuses on rural Japanese agricultural communities and fishing villages as well as urban areas. Also shown are scientists working on solar energy development.

"Learning About Solar Energy" Paramount Communications
Purchase: $210 10 min. color 1975 gr. 4-8

Group of children build a small house to experiment with sun's energy. Cooking over a fire and on a solar cooker demonstrate indirect and direct solar energy, followed by other solar experiments.

"Life From the Sun" International Film Bureau, Inc.
Purchase: $165 gr. 9-12

Offers an overview of the sun's influences on life. Focuses on the physical and biological phenomena resulting from the sun.

"Living the Good Life" Bullfrog Films, Inc.
Rental: $33.50 30 min. color 1977
Purchase: $375

An older couple, the Nearings, prove that it is entirely possible to live a full and balanced life on the land without any fossil fuels. Award-winner.

"Look to the Sun" U.S. Dept. of Energy Film Library - TIC
Free Loan 12½ min. color 1977 gr. 10-adult

Simple animation illustrates how a flat plate solar collector works. Then businessmen, public officials and a solar researcher examine ways to design, finance and build solar projects around the nation, and make them work both economically and efficiently.

"Our Mr. Sun" AT&T Co., Information Dept., 195 Broadway, New York, NY 10007
60 min. color gr. 4-12

Part I reviews the sun from the Old World viewpoint. Part II examines efforts to harness the sun's energy. A bit dated, but very popular on Sun Day 1978.

"Project Sage" U.S. Dept. of Energy Film Library - TIC
Free Loan 8½ min. color 1977 gr. 7-12
(for sale from: Madison Films, Inc., 215 E. 49th St., New York, NY 10017)

Documents installation of solar collectors and appropriate piping to supply hot water to 40 apartment units at a small complex near Los Angeles. Shows that the system is simple and saves a great deal of fossil fuel.

"Putting the Sun to Work" U.S. Dept. of Energy Film Library - TIC
Free Loan 5 min. color 1974 gr. 7-college (& technicians)

Three leading solar experts describe current schemes for harnessing solar power. Domestic and industrial usage is emphasized.

"River to the Sun" Minnesota Power and Light Company, 30 W. Superior St., Duluth, MN
Free Loan 20 min. color 1973 gr. 7-9 55802
Purchase: $200

Portrays man's progress in changing his dependency on limited energy sources to the infinite source of energy, the sun.

"Solar Cookers: Something New Under the Sun" University of California, Extension Media Center
Rental: $19 gr. 9-12

Studies the use of solar energy devices in rural regions. Engineers and anthropologists collaborate to adapt solar technology to serve the needs of underdeveloped areas.

"Solar Design" National Solar Heating & Cooling Information Center
Free Loan 30 min. color

Interviews with several architects who have designed solar homes. Their experiences and problems are discussed. The solar systems and homes are shown and explained.

"Solar Energy" Montage Educational Films
13½ min. color

Past, present and future of solar power is reviewed, emphasizing solar architecture, high and low temperature conversion, ocean thermal, solar cells and biomass.

"Solar Energy: To Capture the Power of Sun and Tide" ACI Media, Inc. (also available through Paramount Communications)
Purchase: $265 21 min. color 1975 gr. 7-college

Tidal and solar power possibilities explored. Examines experimental large- and small-scale solar projects ranging from a sun furnace in the Pyrenees to an owner-built solar rain water collector at Brace Institute, Canada.

"Solar Energy Today" Center for Energy Policy and Research
Free Loan 55 min. color Available in broadcast format for TV airing; as 3/4" video cassette.

Reviews present-day solar energy applications and related energy-conserving building design. Interview with Fred S. Dubin, nationally recognized expert in applications of solar energy and design of energy-conserving buildings and operating systems. Shows solar homes and other installations, related materials on design, effectiveness, aesthetics of practical solar energy systems.

"Solar Energy: Unlimited Power" Montage Educational Films
Rental: $25 13½ min. color 1977 gr. 7-12
Purchase: $225

Compares solar energy characteristics with those of other energy sources. Reviews present and potential uses of solar energy to meet human energy needs.

"Solar Heating" Metabasia, Ltd., P.O. Box 5552, Madison, WI 537[illegible]
Rental: $14 28 min. color 1977 gr. 7-adult
Purchase: $360

Presents basic concepts about energy and heat transfer. Examines each component of solar heating system: collectors, heat storage and transfer medium. Animated segments clearly illustrate the components in operation. Economics of solar heating discussed from consumer's vantage point with practical advice on how to approach the market.

"Solar Power: The Giver of Life" Educational Media Center, University of Colorado
Rental: $10/3 days 29 min. color 1975 gr. 10-adult
Purchase: $333 (film); $230 (videocassette)

Studies solar technology development and setbacks since early civilizations. Discusses current and potential solar applications, and the impact of commercial installations on the environment.

"Solar Radiation" Parts I & II Ward's Natural Resources Establishment, Inc.
Purchase: $198 (part I) gr. 9-12
$220 (part II)

Illustrates the concept that energy radiated by the earth must balance energy received from the sun. In two parts.

"Solar T.E.A. Home" National Solar Heating and Cooling Information Center
Free Loan 8 min. color

Shows how to build a solar home, using as an example one built by the Total Environmental Action group in New Hampshire. The home was part of the U.S. HUD Solar Heating and Cooling Residential Demonstration Program.

"Solar Water Heating" Office of Counsellor (Scientific), Australian Embassy
Free Loan 13 min. color 1964

Describes the design of a standard collector for solar water heating and outlines the principles involved.

"Sunlight: A First Film" BFA Educational Media
Rental: $15/3 days 9 min. color 1971 gr. K-6
Purchase: $140

Demonstrates how all life on earth depends upon sunlight. The sun's rays generate color, warmth, shadows and seasons.

"Sun People" Hal Kirn & Associates, 6510 Wisconsin Ave., Chevy Chase, MD 20015
Purchase: $220 16 min. color 1978 gr. 10-adult (301) 986-0616
Rental available

Interviews with many pioneer builders, architects, scientists, home owners and specialists in passive solar energy. Records their opinions and reactions to living in passive/direct solar homes. Purpose is to convey that the same passive solar techniques apply nationwide.

"Sun Power for Farms" U.S. Dept. of Energy Film Library - TIC
Free Loan 12½ min. color 1977 gr. 7-adult

Examines potential of solar energy heating for agricultural applications. Several research projects are explained by scientists involved in: greenhouses, solar saltwater ponds, crop dryers, and rooftop solar collectors for poultry houses and milking parlors.

"Switch on the Sun" Xerox Education Productions
Purchase: $255 15 min. color 1977(revised) gr. 4-12

Explains why solar energy is the most feasible solution to the diminishing supply of fossil fuels. Examines existing solar energy technologies that are heating homes and manufacturing plants. Also discusses future development.

"Terraset Sun" Solarium Productions, 1061 31st St., N.W., Washington, D.C. 20007
Rental: $50 ($40 is refundable deposit) (202) 337-7717
Purchase: $325 20 min. color 1977

Explores the experimental solar school built in Reston, Virginia, which has become an economic and educational success. Shows the technical systems as well as the community/social side of the story.

Films SOLAR cont'd.

"The Age of the Sun" Glen/Kaye Films or Gene Piotrowsky Enterprises, 107 Morton St. New York, NY 10014 (212) 929-1343
Rental: $35 (available from EARS for $21)
Purchase: $325 21 min. color 1974 gr. 10-adult

Shows specific examples of solar technology and actual installations in use in the United States. Presents a wide variety of methods, and explains the advantages, disadvantages and potential of solar.

"The Big Sun and Our Earth" Coronet Films
Purchase: $150 10 min. color 1957 gr. K-3

Basic concepts about the sun and its relationship to the earth. A young boy observes how the earth's environment changes as life systems respond to light and darkness.

"The Dawn of Time" National Solar Heating and Cooling Information Center
Free Loan 6 min. color

General overview of the utilization of solar energy from the beginning to the present.

"The Solar Builders" National Solar Heating and Cooling Information Center
Free Loan 27 min. color

Solar home builders from New Jersey, Texas and Colorado are interviewed about their experiences. The homes' solar systems are shown and explained. Funded by HUD's Solar Residential Demonstration Program.

"The Solar Frontier" Bullfrog Films, Inc.
Rental: $33.50 25 min. color 1978
Purchase: $350

Three solar-heated homes illustrate the practical and economical aspects of solar energy. The houses are for an average-income family. The cost, performance and technology are explained by architects and residents.

"The Solar Generation" U.S. Dept. of Energy Film Library - TIC
Free Loan 21 min. color 1976 gr. 7-12
(Available: Rental-$35, Purchase-$350 from Stuart Finley, Inc., 3428 Mansfield Rd. Falls Church, VA 22041)

Traces the development and use of solar energy from ancient to present. Follows progress of solar cell technology, solar homes and office buildings, thermal plants, etc Energy experts agree solar usage will increase in this lifetime, making it the solar generation.

"The Sun" Sterling Education Films/Division of Walter Reade Organization, Inc. 241 E. 34th St., New York, NY 10016
Purchase: $155 9 min. color 1969

As the center of the solar system and the earth's source of light and heat, the sun is visually explored. Scientific experiments demonstrate its vital qualities.

"The Sun and How It Affects Us" Coronet Films
Purchase: $160 10 min. color 1958 gr. 4-9

Simple but comprehensive study of the sun's characteristics and its effect on the earth. Illuminates the effects of the sun's corona, flares and sunspots provided through telescopic motion pictures.

Films SOLAR cont'd.

"The Sun: Its Power and Promise" Encyclopedia Britannica Education Corp.
Rental: $17 24 min. color gr. 7-12
Purchase: $320

Spectacular photography of the sun and lively animation explore the ways that solar energy can be used to replace the dwindling supplies of fossil fuels.

"The Sunspot Mystery" Time-Life Multimedia
Rental: $60 58 min. color 1977
Purchase: $650 ($325 videocassette)

Examines the complex ways in which the sun affects the earth. Careful analysis of the sun's behavior can help prevent natural disasters and regulate food supplies.

"Under the Sun" National Training Fund, Sheet Metal and Air Conditioning Industry, 1900 I. St., N.W., Suite 405, Washington, D.C. 20036
(write on your organization stationery)
Free Loan (10 days; borrower pays return postage and insurance)
23½ min. color 1977 gr. 10-adult

Solar overview; solar-heated buildings are shown in operation through animation. Film was made for sheetmetal workers to illustrate the job potential of solar.

WIND

"A First Film on the Wind" BFA Educational Media
Rental: $15/3 days gr. K-3

Illustrates the many ways the wind works even though it cannot be seen.

"Winds and their Causes" (2nd edition) Coronet Films
Purchase: $165 11 min. color/B&W 1967 gr. 4-6

A glider demonstrates effects of fluctuating air temperatures, as heating and cooling occur. Shows how local winds are caused by land forms and water, and global winds by solar heating modified by the earth's rotation and interaction with other winds.

"Wind and What It Does" Encyclopedia Britannica Education Corp.
Rental: $12/3 days; $2 each additional day
Purchase: $150 (color); $90 (B&W) 11 min. color/B&W 1963 gr. K-3

Direct and immediate experience with basic aspects of wind: what it is, what it can do and how it affects man and his surroundings. Shows the wind at work and at rage, wreaking a lot of havoc.

"Wind Power: The Great Revival" University of Colorado Educational Media Center
Rental: $10/3 days 29 min. color 1975 gr. 10-adult
Purchase: $333 (film); $230 (videocassette)

Presents history and current development of wind power technologies. Interviews with current home users, discussing cost, storage, etc.

WATER

"Tidal Power" U.S. Dept. of Army, New England Division, Corps of Engineers
Free Loan 22 min. gr. 7-12

Documents a joint study by U.S. and Canada on economic feasibility of harnessing tidal power for electrical energy. Includes a tour of project sites.

Films WATER cont'd.

"To Capture the Power of Sun & Tide: Unlimited Energy. . . No Pollution"
University of California, Extension Media Center
Rental: $28 gr. 9-12

Examines potential usage of tidal and solar energy. Shows currently operating solar and tidal installations overseas.

"Water" Modern Talking Picture Services, Inc.
Free Loan gr. 9-12

Explores both the aesthetic and practical use of water. Covers the hydroelectric cycle, water chemistry, pollution, irrigation, conservation and industrial/domestic use of water.

BIOMASS - No films known to date.

VIDEOCASSETTES

GENERAL

"Energy: The Problems and the Future" National Geographic Educational Services
Purchase: $310 for 3/4" videocassette
Described on page 25 (Films).

"The Sunbeam Solution" Time-Life Multimedia
Purchase: $215
Described on page 26 (Films).

SOLAR

"Availability of Solar Energy" ITT/V; also AMCEE, c/o Georgia Tech, Atlanta, GA 30332
Purchase: $295 (3/4" videocassette available for loan)
43 min. color college-level

Discusses solar radiation available on or near the earth, properties of the sun, limiting factors and conversion efficiencies. Produced by John Clark of University of Michigan.

"Socio-Economic Aspects of Solar Heating and Cooling" ITT/V
50 min. black and white

Social and economic factors related to solar energy systems, source documents and local factors.

"Solar Energy Today" Center for Energy Policy & Research
Free Loan 3/4" videocassette for viewing by educational, professional and governmental organizations.
Described on page 29 (Films).

"Solar Power: The Giver of Life" Educational Media Center, Boulder, CO
Rental: $10/3 days; $20/15 days; $30/30 days
Purchase: $230
Described on page 29 (Films).

"The Sunspot Mystery" Time-Life Multimedia
Purchase: $325
Described on page 32 (Films).

WIND

"Wind Power: The Great Revival" University of Colorado, Educational Media Center
Rental: $10/3 days; $20/15 days; $30/30 days
Purchase: $230
Described on page 32 (Films).

SLIDESHOWS

"A Solar Greenhouse Project" Solar Engineering Magazine
Purchase: $30 19 slides audio-cassette

Describes various types of solar greenhouses. Details construction of an attached solar greenhouse.

"Basic Solar Slide Kit" (vol. 1) Solar Bookshop, Total Environmental Action, Inc.
Purchase: $19 19 slides color

Basic solar principles are illustrated by showing heat gain through windows, flatplate collectors and photovoltaics. Includes the well-known solar homes of Harry Thomason, Zomeworks, Harold Hay and University of Delaware.

"Energy Slide Show" Consumer Action Now's Council on Environmental Alternatives, Inc.
355 Lexington Ave., 16th Floor, New York, NY 10017 (212) 682-8915
Only costs are for honorarium and travel expenses of CAN narrator. (Possibility of rental/purchase in near future.) 120 slides color 30 min.

Presents historical evolution of energy and renewable energy use. Illustrates application of solar in residential and commercial buildings in the United States. Emphasis on renewable energy sources.

"Full Circle" Solar Engineering Magazine
Purchase: $40 40 slides audio-cassette

Reviews millennium of solar development in North America. Slides begin with Pueblo structures in Southwest, tracing solar heating and cooling systems to the present. Early designs and solar homes of 1930's to present are shown with a view of the future proposed by leading architects. Presentation prepared and written by Donald Watson, a solar architect.

"Passive Solar Slides" New England Solar Energy Association, P.O. Box 541, Brattleboro, VT 05301
Purchase: Members - $31.50/set; $54/both sets Set A = 32 slides
Non-Members- $35/set; $60/both sets Set B = 29 slides
color 1978

Slides illustrate passive solar design techniques for use in New England. Set A concerns direct gain, sunspace-greenhouse and thermosyphon. Set B includes trombe walls, roof ponds and hybrid and integrated systems. Data sheets describe performance, climatic design and type of solar system shown in each set.

"Passive Solar Systems" Total Environmental Action, Inc.
Rental: $35 (specify narrative type) 54 slides with tape or keyed script
Purchase: $65 with typed script 20 min. color 1978
$75 with taped narration

Provides basic information on passive design techniques. Aimed to widely varied audience; appropriate for student, professional and community groups.

"Photovoltaics: The Basics" Solar Engineering Magazine
Purchase: $40 40 slides audio-cassette

Introduces photovoltaic electric power industry. Describes silicon solar cells and how they work. Shows currently manufactured products and equipment and completed projects incorporating photovoltaic arrays.

"Showcase of Solar Homes" Solar Engineering Magazine
Purchase: $40 40 slides audio-cassette

Shows solar houses and test installations open to the public around the nation. Houses vary in price range, architecture, system and funding (both private and public).

Slideshows cont'd.

"Solar Buildings Slide Kit" (vol. 3) Solar Bookshop, Total Environmental Action, Inc.
Purchase: $19 19 slides color

Shows solar heated buildings around the nation. Duplicates many pioneer projects seen in Basic Solar Slide Kit, adding projects like Decade 80's Solar Homes, Grassy Brook Village and the Science Museum of Virginia.

"Solar Collectors Slide Kit" (vol. 2) Solar Bookshop, Total Environmental Action, Inc.
Purchase: $19 19 slides color

Shows flatplate collectors from inventors and manufacturers. Copper, aluminum and steel products included. Also University of Delaware's air collector, and the solar sun roof sandwich by the editor of Solar Energy Digest.

"Solar-Ed Library" The Cooper Solar Distributing Company
Purchase: $129.50 200 slides color

Intended for classroom use. Reviews collector design and performance, thermal storage and solar terminology. Includes calculations, graphs, concept drawings, photos of actual solar components. Manual included for presentation.

"Solar Energy: Here Today" Sun Day office (Center for Renewable Resources, Washington, DC)
Purchase: $16 (maybe $20) 68 slides 10 min. color 1978 gr. 7-adult audio-cassette

Explains and shows active and passive systems, introduces photovoltaics, wind, biomass and small (low-head) hydroelectric power. Simple, educational.

"Solar Energy: Ready When You Are" National Audio-Visual Center
Purchase: $28 140 slides 16 min. color 1977 audio-cassette

Examines residential and commercial solar applications throughout the United States. Explores various solar technologies readily available for homes, apartments, office buildings, schools and factories.

"Solar Energy: The Quest and the Question" State Energy Office (made by SERI)
Free Loan 80 slides 22 min. color 1978 audio-cassette or script

Quick overview of many renewable energy uses: all forms of solar conversion, wind, biomass and ocean thermal energy conversion (OTEC). Covers all regions of the country.

"Solar Energy: The Sun, an Old Solution to a New Problem" Educational Activities, Inc. Freeport, NY

(No additional information available.)

"Solar Homes" James L. Ruhle & Associates
Purchase: $50 for 50 slides with printed narration
$25 for 50-frame color filmstrip with 30 min. audio-cassette

Shows homes and buildings fitted with: liquid flatplate, reinforced concrete, extruded plastic & rubber, and trickling water solar collectors. Displays "rollbond" copper and aluminum absorber panels and energy storage systems, along with hot air collectors and a variety of solar air-conditioning systems.

"Solar Homes in the Low Countries" Solar Sources Corporation
Rental: $50/day or $25/day if rented 3 or 4 times
75 slides color audio-cassette with narration 1976

Shows construction of two South Carolina homes with solar heating and hot water systems. Both built by Solar Development Associates with HUD grants for solar systems. Covers architecture, engineering and cost benefits.

Slideshows cont'd.

"Solar Schools" Solar Engineering Magazine
Purchase: $40 40 slides with audio-cassette 35 min.

Views solar projects in 14 schools throughout the United States. Current and completed projects are described in regard to performance, cost and types of installation.

"Solar Slide Kit" Zomeworks Corporation
Purchase: $12 21 slides color 1974

Describes beadwall construction, drum heat storage and skylid operation for a passive solar design.

"The Solar Greenhouse Slide Series" The Solar Sustenance Team (Bill Yanda), Rte. 1, Box 107AA, Sante Fe, NM 87501 (505) 455-7550
Purchase: $15/each set with tape 20 slides/set with audio-cassette
$90/whole series with tapes color 1978

A series of seven sets of slides depicting the numerous aspects of solar greenhouses. The sets cover (#1) attached solar greenhouses, (#2) design, (#3) construction, (#4) horticulture, (#5) insects and other problems, (#6) community solar greenhouses, and (#7) solar greenhomes. Good for community groups, schools and conference presentations.

Single Slides

Solar Energy Slides Solar Energy Institute of America, P.O. Box 6068, Washington, DC 20005

Purchase: $1/each (non-member)
$.70/each (member) $5 minimum order

Individual slides on all aspects of solar: collectors, swimming pools, photovoltaics, heating and cooling, homes, commercial buildings, schematics, etc.

FILMSTRIPS

"Harnessing the Sun" National Geographic Educational Services
Purchase: $18 13 min. gr. 5-12 1977 with cassette

Traces the sun's essential characteristics--light and heat--that affect all life on earth. Weighs the increasing demand for energy against dwindling fossil fuel sources, recognizing the need for new energy sources. Present and future solar technologies are examined.

"Radiant Energy" Singer Education Division
Purchase: $17 gr. 6-9 color

Shows how solar energy is fundamental to life and movement. Describes the dynamics of light, color and heat. Accompanied by record or cassette and teacher's guide.

"Solar Homes" James L. Ruhle & Associates
Described on page 36 (Slideshows).

"The Solar Quest" The Polished Apple, 3742 Seahorn Dr., Malibu, CA 90265
Purchase: $29.75 12 min. color audio-cassette gr. 10-up

Designed to show past, present and future uses of solar technology, with special emphasis on home design. Packaged with teacher's guide and bibliography.

"The Sun's Energy" Prentice-Hall Co., Customer Service Dept., 151 White Plains Rd., Tarrytown, NY 10591 (914) 631-8300
Purchase: $27 40 frames 14 min. color gr. 9-adult
with cassette or record and teacher's guide

Illustrates direct and indirect uses of solar power such as solar cells, heaters and cooking devices.

"World Above Us Series: The Sun" Troll Associates
Purchase: $14 gr. K-4 audio-cassette

A simple presentation of the basic facts about the sun as the ultimate energy source.

UNANNOTATED FILMSTRIPS

"Electricity from Heat and Sunlight" Doubleday Multimedia
Purchase: $23.50 gr. 4-12 color

"Energy From the Sun" McGraw-Hill Films
Purchase: $6.75 36 frames color gr. 4-9

"Harnessing Solar Energy" Popular Science Publishing Co.
Purchase: $6 40 frames gr. 9-12

"Solar Storehouse: Light, Heat and Power" Moody Institute of Science
12000 E. Washington Blvd., Whittier, CA 90606
Purchase: $6 38 frames gr. 4-9

"The Sun's Energy" Cenco Educational Aids, 1700 Irving Park Road, Chicago, IL 60613
Purchase: $15 4 min. color gr. 409

PUBLICATIONS LIST

Center for Renewable Resources
1028 Connecticut Ave., NW #1100
Washington, D.C. 20002 (202)466-6880

Blueprint for a Solar America is a 39-page document presenting the rationale for and the programs needed to achieve at least 25 percent of U.S. energy from renewable sources by the year 2000. Published January 1979.

SUN! A Handbook for the Solar Decade is a 370-page anthology prepared for Sun Day by Friends of the Earth. It includes some of the finest articles on solar energy with selections by Denis Hayes, Amory Lovins, Barry Commoner, William Shurcliff and William von Arx.

Rays of Hope is a 240-page paperback by Denis Hayes, Sun Day's chairman. The book explores the global transition to a post-petroleum world.

Sources of Funds for Solar Activists is a 32-page catalog of foundation and federal funding sources for solar activists.

A Survey of Model Programs: State and Local Solar/Conservation Projects is a 14-page catalog of the specific projects that state and localities have developed to ease their energy problems.

The Citizens' National Solar Platform is a 17-page set of resolutions approved by the first National Solar Congress. The document identifies the major barriers to solar development and outlines strategies to overcome them.

A Directory of Federal Sources of Information on Solar Energy is a 16-page guide for identifying sources of solar energy information available from federal government agencies.

Citizens' Solar Program: State Reports on Barriers and Strategies to Renewable Energy Development is a 693-page state-by-state analysis of the barriers to solar energy development. It includes a list of contacts, Citizens' National Solar Platform, Sources of Funds for Solar Activists, A Directory of Federal Sources of Information on Solar Energy and A Survey of Model Programs: State and Local Solar/Conservation Projects.

Executive Summary of the Citizens' Solar Program is a 27-page summary and evaluation of the 50 state reports on the barriers and strategies to renewable energy development.

Solar Energy Bibliography for Elementary, Secondary and College Levels is an annotated listing of books, films and slideshows on renewable resources. The selections are categorized according to grade and energy source(sun, wind, water & biomass).

Solar Energy Education Packet for Elementary & Secondary Students is a 60-page collection of interdisciplinary classroom activities, lessons and information sheets. It covers all renewable sources and includes the solar energy book bibliography for grades K-12.

SUN TIMES is a monthly publication of the Solar Lobby covering solar legislation, policies and technologies. It also offers information and advice on how to create a sustainable lifestyle.

All of the above are $2.50 each, except:

(Please make checks payable to the Center for Renewable Resources)

Citizens' Solar Program(Complete Report) $20.00

Solar Energy Education Packet $3.75

SUN TIMES $15.00/year subscription

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